



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUN 20 2019

REPLY TO THE ATTENTION OF

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

William Elson, Senior Vice President
Fritz Products, Inc.
255 Marion Road
River Rouge, Michigan

Re: Notice and Finding of Violation
Fritz Products, Inc.
River Rouge, Michigan

Dear Mr. Elson:

The U.S. Environmental Protection Agency is issuing the enclosed Notice and Finding of Violation (NOV/FOV) to Fritz Products, Inc. (you) under Section 113(a)(1) and (3) of the Clean Air Act, 42 U.S.C. § 7413(a)(1) and (3). We find that you are violating the National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production, 40 C.F.R. Part 63, Subpart RRR and your Permit to Install at your River Rouge, Michigan facility.

Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the NOV/FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, to make the conference more productive, we encourage you to submit to us information responsive to the NOV/FOV prior to the conference date.

Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contact in this matter is Alexandra Letuchy. You may call her at (312) 886-6035 to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

Michael D. Harris

Michael D. Harris
Acting Division Director
Enforcement and Compliance Assurance Division

Enclosure

cc: Jenine Camilleri, Enforcement, Unit Michigan Department of Environmental Quality
Wilhemina McLemore, Detroit District, Michigan Department of Environmental Quality

6. “Hazardous air pollutant” is defined at 42 U.S.C. § 7412(a)(6) as “any air pollutant listed in or pursuant to” Section 112(b) of the Act.

7. Section 112(i)(3) of the Act, 42 U.S.C. § 7412(i)(3), prohibits any person subject to a NESHAP from operating a source in violation of a NESHAP after its effective date. See also 40 C.F.R. §§ 61.05 and 63.4.

The NESHAP for Secondary Aluminum Production

8. Pursuant to Section 112 of the Act, 42 U.S.C. § 7412, the EPA promulgated the NESHAP for Secondary Aluminum Production at 40 C.F.R. Part 63, Subpart RRR, 40 C.F.R. §§ 63.1500-1520 (Subpart RRR). 65 Fed. Reg. 15710 (March 23, 2000).

9. Subpart RRR applies to the owner or operator of each secondary aluminum production facility as defined in 40 C.F.R. § 63.1500(a).

10. “Secondary aluminum production facility” (SAPU) is defined at 40 C.F.R. § 63.1503 as any establishment using clean charge, aluminum scrap, or dross from aluminum production, as the raw material and performing one or more of the following processes: scrap shredding, scrap drying/delacquering/decoating, thermal chip drying, furnace operations (i.e., melting, holding, sweating, refining, fluxing, or alloying), recovery of aluminum from dross, in-line fluxing, or dross cooling.

11. 40 C.F.R. § 63.1500(c) states that the requirements of this subpart pertaining to dioxin and furan (D/F) emissions and associated operating, monitoring, reporting and recordkeeping requirements apply to each new and existing secondary aluminum processing unit, containing one or more group 1 furnace emission units processing other than clean charge, located at a secondary aluminum production facility that is an area source of HAPs as defined in § 63.2.

12. “Group 1 furnace” is defined at 40 C.F.R. § 63.1503 as “a furnace of any design that melts, holds, or processes aluminum that contains paint, lubricants, coatings, or other foreign materials with or without reactive fluxing, or processes clean charge with reactive fluxing.”

D/F Emission Limit

13. 40 C.F.R. § 63.1505(i)(3) states that the owner or operator of a group 1 furnace must use 15 µg of D/F TEQ per Mg (2.1×10^{-4} gr of D/F TEQ per ton) of feed/charge from a group 1 furnace at a secondary aluminum production facility that is a major or area source in this paragraph to determine the emission standards for a SAPU.

Airflow Measurements

14. 40 C.F.R. § 63.1506(c)(1) states that “[f]or each affected source or emission unit equipped with an add-on air pollution control device, the owner or operator must: [d]esign and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates or facial inlet velocities as contained in the ACGIH Guidelines (incorporated by reference, see § 63.14).”

15. 40 C.F.R. § 63.1506(c)(2) states that “[f]or each affected source or emission unit equipped with an add-on air pollution control device, the owner or operator must: [v]ent captured

emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter.”

16. 40 C.F.R. § 63.1510(a) states that “[t]he owner or operator of a new or existing affected source or emission unit must monitor all control equipment and processes according to the requirements in this section. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to this subpart.”

17. Table 3 to Subpart RRR requires “[a]nnual inspection of all emission capture, collection, and transport systems to ensure that systems continue to operate in accordance with ACGIH Guidelines. Inspection includes volumetric flow rate measurements or verification of a permanent total enclosure using EPA Method 204.”

18. 40 C.F.R. § 63.1510(d)(2) states that “[t]he owner or operator must: [i]nspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in § 63.1506(c) and record the results of each inspection.”

Lime Addition Set Point, Total Reactive Chlorine Flux Injection Rate Set Point, and PAC Injection Rate Set Point

19. 40 C.F.R. § 63.1505(i)(3) states that the owner or operator of a group 1 furnace must use 15 µg of D/F TEQ per Mg (2.1×10^{-4} gr of D/F TEQ per ton) of feed/charge from a group 1 furnace at a secondary aluminum production facility that is a major or area source in this paragraph to determine the emission standards for a SAPU.

20. 40 C.F.R. § 63.1506(m)(4) states that “[t]he owner or operator of a group 1 furnace with emissions controlled by a lime-injected fabric filter must: [f]or a continuous lime injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at or above the level established during the performance test.”

21. 40 C.F.R. § 63.1506(m)(5) states that “[t]he owner or operator of a group 1 furnace with emissions controlled by a lime-injected fabric filter must: [m]aintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.”

Operation and Maintenance Plan

22. 40 C.F.R. § 63.1510(b) states that “[t]he owner or operator must prepare and implement for each new or existing affected source and emission unit, a written operation, maintenance, and monitoring (OM&M) plan The owner or operator must comply with all of the provisions of the OM&M plan as submitted to the permitting authority for major sources, or the Administrator for area sources, unless and until the plan is revised in accordance with the following procedures Each plan must contain the following information:

- (3) Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards in § 63.1505.

(6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in paragraph (b)(1) of this section, including:

(i) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and

(ii) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.

(7) A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance."

Aluminum Production Monitoring

23. 40 C.F.R. § 63.1506(d)(1) states that "[t]he owner or operator of each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed/charge must . . . [e]xcept as provided in paragraph (d)(3) of this section, install and operate a device that measures and records or otherwise determine the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test."

24. 40 C.F.R. § 63.1506(d)(3) states that "[t]he owner or operator may choose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit provided that:

(i) The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and

(ii) All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight."

25. 40 C.F.R. § 63.1510(e) states that "[t]he owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed/charge must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis. As an alternative to a measurement device, the owner or operator may use a procedure acceptable to the permitting authority for major sources, or the Administrator for area sources to determine the total weight of feed/charge or aluminum production to the affected source or emission unit.

(1) The accuracy of the weight measurement device or procedure must be ±1 percent of the weight being measured. The owner or operator may apply to the permitting agency for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative

accuracy will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standard.

(2) The owner or operator must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.”

26. 40 C.F.R. § 63.1510(w) states that “[i]f an owner or operator wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in this subpart, other than those alternative monitoring methods which may be authorized pursuant to § 63.1510(j)(5) and § 63.1510(v), the owner or operator may submit an application to the Administrator. Any such application will be processed according to the criteria and procedures set forth in paragraphs (w)(1) through (6) of this section.

27. 40 C.F.R. § 63.1510(w)(1) states that “[t]he Administrator will not approve averaging periods other than those specified in this section.”

Semiannual Reports

28. 40 C.F.R. § 63.1516(b) states that “the owner or operator of a major or area source must submit semiannual reports according to the requirements in § 63.10(e)(3). Except, the owner or operator must submit the semiannual reports within 60 days after the end of each 6-month period instead of within 30 days after the calendar half as specified in § 63.10(e)(3)(v). When no deviations of parameters have occurred, the owner or operator must submit a report stating that no excess emissions occurred during the reporting period.”

Michigan Permit to Install

29. On May 31, 1972, 37 Fed. Reg. 10873, EPA approved the State of Michigan’s February 3, 1972 State Implementation Plan (SIP) submittal. On May 6, 1990, 45 Fed. Reg. 29790, EPA approved the State of Michigan’s April 25, 1979 SIP submittal. On May 13, 1993, 58 Fed. Reg. 28359, EPA approved the State of Michigan’s October 10, 1986 SIP submittal (portions of which were withdrawn in a January 28, 1993 letter from the State of Michigan).

30. The Michigan SIP includes Mich. Admin. Code r. 336.1201 (1980) which provides that a person shall not install, construct, reconstruct, relocate, or alter any process, fuel-burning, or refuse-burning equipment, or control equipment pertaining thereto which may be a source of an air contaminant, until a permit is issued by the commission. Mich. Admin. Code r. 336.1201 further provides that this permit shall be known as a PTI and shall cover construction, reconstruction, relocation, and alteration of equipment where such is installed.

31. On October 12, 2012, the Michigan Department of Environmental Quality issued PTI 15-01A to Fritz.

32. Condition.FGAluminumMelt.I.2. of PTI 15-01A limits Fritz’s hydrogen chlorine (HCl) emissions from the EUPreheat and EUReverbFurnace1 to less than 2.0 pounds per hour and 8.8 tons per year.

Factual Allegations

33. Fritz owns and operates a secondary aluminum production facility at 255 Marion Road, River Rouge, Michigan (the facility).

34. Fritz uses aluminum scrap as the primary charge into its reverberatory furnace. The charge is melted and then poured into ingots and sows.

35. The reverberatory furnace is defined as a group 1 furnace because it is a secondary aluminum processing unit that processes unclean charge and is therefore subject to the Subpart RRR NESHAP.

36. The facility was in operation before February 11, 1999.

D/F Emission Limit

37. On September 11-12, 2014, Fritz conducted performance testing to determine, among other things, its D/F emissions from the group 1 furnace. The emission rate during the test was 3.3×10^{-4} gr of D/F TEQ per ton.

38. On June 30, 2015, Fritz conducted performance testing to determine, among other things, its D/F emissions from the group 1 furnace. The emission rate during the test was 9.2×10^{-4} gr of D/F TEQ per ton.

39. In an email dated November 4, 2015, Fritz stated that it had started injecting powdered activated carbon (PAC) into the exhaust gas stream for D/F control.

40. On November 19, 2015, Fritz conducted diagnostic performance testing to determine the effects of PAC on D/F emissions from the group 1 furnace.

41. On July 19 and 20, 2016, Fritz conducted performance testing to determine, among other things, its D/F emissions from the group 1 furnace while injecting PAC. The test demonstrates that Fritz can operate in a manner which would limit its emissions to below the D/F limit in Subpart RRR.

Airflow Measurements

42. In a letter dated June 8, 2012, Fritz stated that the minimum exhaust rate for the group 1 furnace is approximately 26,000 actual cubic feet per minute (ACFM).

43. On September 11 and 12, 2014, Fritz conducted a performance test and measured volumetric flow rate in accordance with EPA Method 1 and 2. The flow rate during the test was 23,691 ACFM.

44. On November 19, 2015, Fritz conducted a performance test and measured volumetric flow rate in accordance with EPA Method 1 and 2. The flow rate during the test was 22,289 ACFM.

Lime Addition Set Point, Total Reactive Chlorine Flux Injection Rate Set Point, and PAC Injection Rate Set Point

45. On August 28, 2013, Fritz conducted a performance test to determine its HCl emissions from the group 1 furnace. The results of the August 28, 2013 performance test demonstrated that the facility has the potential to emit HAP emissions in excess of the major source thresholds.

46. On September 11 and 12, 2014, Fritz conducted performance testing to determine, among other things, its HCl emissions from the group 1 furnace while adding gaseous chlorine as a flux to the bottom of the molten bath and operating its continuous chemical grade hydrated lime injection system. The report states that the average total reactive chlorine flux injection rate was 75.6 pounds per hour during the test and an average lime feed rate was 13.30 pound per hour during the test. The test demonstrates that Fritz can operate in a manner which would limit its emissions to below the HCl limits in PTI 15-01A and in a manner which would limit its HCl emissions from the group 1 furnace to below major source thresholds.

47. On July 19 and 20, 2016, Fritz conducted performance testing to determine, among other things, its D/F emissions from the group 1 furnace while adding gaseous chlorine as a flux to the bottom of the molten bath, operating its continuous chemical grade hydrated lime injection system, and injecting PAC. The test report states that during the test the average total reactive chlorine flux injection rate was 166.4 pounds per hour, the average lime feed rate was 10.67 pounds per hour, and PAC injection rate was 2.1 pounds per hour.

48. On August 31, 2017, Fritz provided a spreadsheet of the total reactive chlorine flux injection rate for August 21, 2013 through July 28, 2017 in 15-minute block periods. The total reactive chlorine flux injection rate averaged over 9-hour blocks was greater than the level established during the September 11 and 12, 2014, performance test 77.8% of the time for the time period September 11, 2014 through July 28, 2017. The total reactive chlorine flux injection rate averaged over 9-hour blocks was greater than the level established during the July 19 and 20, 2016, performance test 17.9% of the time from September 11, 2014 through July 28, 2017.

49. On August 31, 2017, Fritz provided a spreadsheet of the lime feed rate for August 21, 2013 through July 28, 2017 in 15-minute block periods. The lime feed rate averaged over 9-hour blocks was less than the level established during the September 11 and 12, 2014, performance test 92.0% of the time from September 11, 2014 through July 28, 2017. The lime feed rate averaged over the time period used in the performance test was less than the level established during the July 19 and 20, 2016, performance test 73.5% of the time from September 11, 2014 through July 28, 2017.

50. On August 31, 2017, Fritz provided a spreadsheet of the PAC injection rate for November 5, 2015 through July 28, 2017 in 15-minute block periods. The PAC injection rate averaged over 9-hour blocks was less than the level established during the July 19 and 20, 2016, performance test 42.4% of the time.

51. On September 20 and 21, 2017, Fritz conducted HCl and D/F testing at the group 1 furnace at representative (normal) conditions, as defined in the April 27, 2009 EPA guidance

titled "Issuance of the Clean Air Act National Stack Testing Guidance." The test demonstrates that Fritz can operate in a manner which would limit its emissions to below the HCl limits in PTI 15-01A, to below the D/F limits in Subpart RRR, and in a manner which would limit its HCl emissions from the group 1 furnace to below major source thresholds. During the test Fritz established a new lime feed rate and new total reactive chlorine flux injection rate.

52. On April 4, 2019, EPA inspected the facility. The information provided during the inspection demonstrates that Fritz has modified its alarm set points to be consistent with the lime feed rate and total reactive chlorine flux injection rate established during the September 20 and 21, 2017, performance test.

Operation and Maintenance Plan

53. Fritz provided EPA with a copy of OM&M Plans dated August 10, 2018, December 7, 2018, and February 21, 2019. The OM&M Plans did not include:

- a) Procedures for the proper operation and maintenance of each process unit.
- b) Procedures to determine and record the time corrective action was initiated and the time/date corrective action was completed.
- c) Procedures for recording the time corrective action was initiated, and the time/date corrective action was completed.
- d) A maintenance schedule for each process that is consistent with the manufacturer's instruction and recommendations for routine and long-term maintenance.

Aluminum Production Monitoring

54. The August 10, 2018 and December 7, 2018 OM&M Plans state that: "[a]luminum production is measured and recorded daily. Hourly aluminum production is calculated by dividing the daily amount of aluminum produced by 24. The hourly feed charge rate is calculated by dividing the hourly aluminum production rate by 0.9. The rate of aluminum production is monitored by weighing the aluminum product after it is discharged from the molds. Production rate is recorded for each day of production and maintained electronically."

55. The February 21, 2019 OM&M Plan states that: "[a]luminum production is measured and recorded daily. Hourly aluminum production is calculated by dividing the daily amount of aluminum produced by 24. The rate of aluminum production is monitored by weighing the aluminum product after it is discharged from the molds. Production rate is recorded for each day of production and maintained electronically."

56. During the April 4, 2019 EPA inspection, Fritz showed EPA an example daily aluminum production record and provided examples of packing slips which indicate the weight of the aluminum produced during each heat.

Semiannual Reporting

57. On December 6, 2017, MDEQ notified Fritz that it had not submitted Subpart RRR semiannual compliance reports required for the second semiannual compliance period in 2014, the first or second semiannual compliance period in 2015, and 2017, and the first semiannual compliance period in 2018.

58. During EPA's April 4, 2019 inspection, EPA requested to see a copy of the most recent semiannual compliance report. Fritz told EPA that it had not submitted a semiannual report for the second semiannual compliance period of 2018.

Violations

D/F Emission Limit Exceedance

59. By failing to limit its D/F emissions to 2.1×10^{-4} gr of D/F TEQ per ton, from September 11, 2014 until July 19 and 20, 2016, Fritz violated 40 C.F.R. 63.1505(i)(3).

Airflow Measurements

60. By failing to demonstrate during the annual inspection of the emission capture, collection, and transport systems continue to operate in accordance with ACGIH Guidelines in 2014 and 2015, Fritz failed to demonstrate continuous compliance with 40 C.F.R. §§ 63.1506(c)(1) and (c)(2).

Lime Feed Rate Set Point, Total Reactive Chlorine Flux Injection Rate Set Point, and PAC Injection Rate Set Point

61. By failing to operate in accordance with the total reactive chlorine flux injection rate and the lime feed rate established during the September 11, 2014, and July 19 and 20, 2016, performance tests, from September 11, 2014 through at least July 28, 2017, Fritz violated 40 C.F.R. §§ 63.1506(m)(4) and 40 C.F.R. 63.1506(m)(5).

62. By failing to operate in accordance with the total reactive chlorine flux injection rate and the lime feed rate established during the September 11, 2014, and July 19 and 20, 2016, performance tests, from September 11, 2014 through at least July 28, 2017, Fritz failed to demonstrate continuous compliance with the emission standards at 40 C.F.R. § 63.1505(i)(3) and Condition.FGAluminumMelt.I.2. of PTI 15-01A.

63. By failing to operate in accordance with the PAC injection rate established during the July 19 and 20, 2016 performance tests, from November 5, 2015 through at least July 28, 2017, Fritz failed to demonstrate continuous compliance with the emission standards at 40 C.F.R. § 63.1505(i)(3) and Condition.FGAluminumMelt.I.2. of PTI 15-01A.

Operation and Maintenance Plan

64. By failing to prepare and implement a written OM&M Plan that contain procedures for the proper operation and maintenance of each process unit; procedures to

determine and record the time corrective action was initiated and the time/date corrective action was completed; procedures for recording the time corrective action was initiated, and the time/date corrective action was completed; and a maintenance schedule for each process that is consistent with the manufacturer's instruction and recommendations for routine and long-term maintenance, Fritz violated 40 C.F.R. § 63.1510(b)(3), (6), and (7).

Aluminum Production Monitoring

65. By failing to install, calibrate, operate and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit over the same operating cycle or time period used in the performance test, Fritz violated 40 C.F.R. § 63.1510(e).

Semiannual Reporting

66. By failing to submit Subpart RRR semiannual compliance reports, Fritz violated 40 C.F.R. § 63.1516(b).

6/20/2019
Date

Michael D. Harris
Michael D. Harris
Acting Division Director
Enforcement and Compliance Assurance Division

CERTIFICATE OF MAILING

I certify that I sent a Finding of Violation, No. EPA-5-19-MI-08, by Certified Mail, Return Receipt Requested, to:

William Elson, Senior Vice President
Fritz Products, Inc.
255 Marion Road
River Rouge, Michigan

I also certify that I sent copies of the Finding of Violation by email to:

Jenine Camilleri
Enforcement Unit Supervisor
Air Quality Division
Michigan Department of Environmental Quality
CamilleriJ@michigan.gov

Wilhemina McLemore
Detroit District
Michigan Department of Environmental Quality
mclemorew@michigan.gov

On the 20th day of June 2019

Kathy Jones

Kathy Jones
Program Technician
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 7018 0680 0002 2759 4281